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A physician on vivisection : extracts fr

# A PHYSICIAN ON VIVISECTION.

## EXTRACTS

FROM

THE ANNUAL ADDRESS BEFORE THE AMERICAN  
ACADEMY OF MEDICINE, WASHINGTON,  
MAY 4, 1891,

BY

PROFESSOR THEOPHILUS PARVIN,  
M.D., LL.D.,

OF JEFFERSON MEDICAL COLLEGE, PHILADELPHIA, PA.,

President of the Academy.

CAMBRIDGE:

JOHN WILSON AND SON.

University Press.

1895.

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**A PHYSICIAN ON VIVISECTION.**

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## INTRODUCTION.

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THE following excerpts from the Presidential Address of Professor THEOPHILUS PARVIN, M.D., touching the subject of Vivisection from the standpoint of a teacher of Medical Science, deserve a wide circulation, not only in the medical profession, but also among all lovers of scientific progress. The compiler has taken the liberty of marking by italics several sentences which seem worthy of special note, and for such emphasis he alone is responsible. It is but just to Professor PARVIN to say, that this reprint from his published Address is not made by his authority ; but that it has been

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undertaken solely from belief in the value of opinions so forcibly and clearly expressed, and based upon so many years' experience both as a medical teacher and as a practical physician.

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## ON VIVISECTION.

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THE subject of bacteriology has, I believe, undue importance in professional study and teaching. . . . May not a similar statement be made in regard to vivisection? My belief is that the value of this method of study in relation to surgery and therapeutics has been exaggerated. So far as the first department is concerned, reference will be made to abdominal and to brain surgery. If Mr. Tait's statement is accepted, — and his authority and ability none can justly question, — vivisection has been an injury, not a help, to the former. His declarations upon this point have been positive and frequent. One of the most recent, 1889, is as follows: "*Instead of vivisection having in any way advanced abdominal surgery, it has, on the contrary, retarded it.*"



Those engaged in brain-surgery sometimes refer to the great advantages obtained by vivisection in cerebral localization; but Dr. Seguin, whose authority will be admitted, referring to a paper by Horsley, makes the following statements: "The author appears to assume that our progress in cerebral localization has been mainly dependent upon experimentation. Here again we must differ from him. Clinical observation and pathological data come first (Broca for speech-centre, Hughlings-Jackson for a hand-centre and general doctrine), the animal experiments with detailed proofs by Hitzig, Ferrier, and others long after; and the solid facts upon which we make our daily localization diagnoses have been patiently accumulated by pathologists, and would stand to-day supporting the doctrine of cerebral localization if not one animal's brain had been touched. Besides, in the case of the visual half-centre, human pathological facts have overthrown the result of experimentation (Ferrier's angular-gyrus centre), and have made us, for practical purposes, indifferent to the contradictory results of Munk and Goltz. It is safe to say

that every one of the so-called 'centres' in the human brain have been determined empirically by post-mortem proofs, independently of experimental data. What animal experiments would have led us, for example, to locate the half-centre for ordinary vision in the cuneus, the centre for the leg in the paracentral lobule, and that for audited language in the left first temporal gyrus? In this department of pathology medical science has been strictly inductive and sufficient unto itself, though receiving confirmatory evidence from the physiologist. The first (speech) and the last (visual) centres have been discovered by clinical and pathological studies."

Facility in operating is one of the advantages claimed for vivisection, and the claim is just. Nevertheless, the animals thus used for the education of the surgeon *ought to be completely anæsthetized during operations, and killed immediately after, and not left to live days of suffering*. Moreover, it should be remembered that great surgeons have made their work intelligent and facile by operations upon the human cadaver; the glory of many

of our country's dead surgeons has never been eclipsed by any of those now living, no matter how much time they have given to vivisection.

What shall be said of the value of experimental therapeutics? The shortest and most positive answer is that given by one of the highest French authorities, Dujardin-Beaumetz: "Experimental therapeutics exist only in name, and will continue nominal until we are able to create at will in animals the diseases common to mankind."

The famous Hyderabad Commission, after killing hundreds of animals, chiefly dogs, by chloroform anæsthesia, concluded that death occurred from asphyxia, and never from syncope; and therefore in the administration of chloroform as an anæsthetic to human beings, the respiration only need be observed. Dr. Richardson shows that the inference is erroneous, stating that "its first failure arises from the fact that the reasoning soul, as Thomas Willis calls it, is left out of the argument." Not only this, but equally able and eminent experimenters with those concerned in the Hyderabad investigations have shown that

dogs may, when killed by chloroform inhalation, perish from syncope, or from syncope and asphyxia, instead of from the latter only. Differences of climate and differences of dogs have been suggested as explaining these different results. Who shall compose these strifes? *What uncertainties may belong to investigations made by the most skilful, and how unwilling should medicine be to accept all conclusions of the laboratory as certain truth!*

Medicine does not accept in all cases such conclusions. For example, doctors, relying upon clinical experience, give certain mercurials to excite the hepatic secretion; but this practice ought to have been abandoned long ago when the experiments of Rutherford proved that in dogs no such result followed. Imagine the experimental therapist giving a patient a dose of calomel, who innocently asks, "Is thy servant a dog that this drug is given me?" The doctor of course can reply, though the imperfection of his method is thus confessed, "No; it is because you are not a dog that I prescribe it."

Some two years since, Herbert Spencer hav-

ing suggested to Huxley that in case he were sick he would employ a practitioner who trusted in the teaching of experimental therapeutics, the latter replied, "Heaven forbid that I should fall into that practitioner's hands! and if I thought any writings of mine could afford the slightest pretext for the amount of man-slaughter of which that man would be guilty, I should be sorry indeed."

When one reads the experiments made upon animals with some well-known remedies, very probably he finds no addition of a practical sort to his knowledge; he learns nothing as to when, in what doses and intervals, the medicines are to be administered. Digging post-holes and fixing posts in them will define boundaries, but do not make a fruitful orchard.

When we consider that drugs do not act upon man invariably as they do upon inferior animals, nor when thus acting they may not in corresponding doses; and that animals differ among themselves as to susceptibility; and that, finally, these animals are not suffering from the diseases for which in the human

subject the remedies are to be given, not indeed afflicted with any disease, — *it must be obvious that there are sources of fallacy inherent in the method, and that false conclusions may result.*

Whether the good outweighs the evil, whether the profit in this business is greater than the loss, must be finally decided, not by ardent vivisectionists who are liable to become intolerant and aggressive, nor by zealous anti-vivisectionists who may exalt sentiment above knowledge and reason, but by the calm, continued observation and experience of conscientious, intelligent practitioners.

It seems to me that the most valuable result of experiments upon animals has been in the discovery of the etiology of so-called septic infection; and hence the means, whether aseptic or antiseptic, by which this great evil may be usually averted.

Pasteur's investigations as to the cause of hydrophobia and the employment of preventive inoculations, require longer observation and experience for appreciation. Koch's method of cure of tuberculosis rates much

lower than it did a few months ago. *It is not beyond the bounds of possibility, that before many years the average results from anti-hydrophobic and anti-tuberculous inoculations will be of such an unfavorable character that they will give one of the strongest arguments against vivisection.*<sup>1</sup>

There are certain presumptive arguments against vivisection. If there be a God of love and power, without whose knowledge not even a sparrow falls to the ground,—a God who giveth to the beast his food and to the young ravens which cry; who is good to all, and whose tender mercies are over all His works,—surely it is not in accordance with His character and purposes that animals should undergo cruel tortures for man's benefit.

The animal creation has been made subject to man; many of them are our dependents, and some are capable of the strongest attachment to human beings, and become the most devoted friends. Even the wild animal sometimes appeals in its distress for human help.

<sup>1</sup> This was written in 1891. Already, in 1895, the "anti-tuberculous inoculations" have been given up.

What might not all animal creation become to man if everywhere the law of kindness ruled his action! Physicians, whose very name points to widest sympathy with Nature, ought to be the chief apostles in preventing cruelty and proclaiming kindness to animals as the duty of man, — and therefore must take heed lest the power of their apostleship be weakened by needless, useless, and painful vivisections; for preaching and practice coincide, if good effect comes from the former.

The attitude toward vivisection taken by some of the best men of the age is assuredly very hostile. For example, three of the greatest poets of the century — Tennyson, Robert Browning, and Whittier — have condemned it. Chief-Justice Coleridge, Phillips Brooks, and Morgan Dix are other illustrious men that have given severe censure. Robert Browning, a few years before his death, said: “*But this I know, I would rather submit to the worst of the deaths, so far as pain goes, than have a single dog or cat tortured under the pretence of saving me a twinge or two.*” Morgan Dix, in the course of a letter written upon this subject last



year, uses the following language: "I have read accounts of the tortures inflicted in the name of science on the creatures committed to our care or placed in our power by a Divine Providence, and they have made me sick at heart for weeks together. I shall never peruse these frightful statistics again. *I have read what arguments are made in extenuation or recommendation of the practice, and their only effect has been to strengthen my conviction that man is capable of becoming the most barbarous and most merciless of all agents.*"

It is wise for physicians interested in vivisection to recognize that there is on the part of prominent women and men in the laity a strong sentiment of antagonism to experiments upon animals; and therefore they should avoid all such work not promising certain benefit to man, and anæsthetics ought always to be employed. I sometimes fear that the anæsthesia is frequently nominal rather than real, else why so many and ingenious contrivances for confining the animal during operations, — contrivances that are not made use of in surgical operations upon human beings, their immobility being secured by profound anæsthesia.

While it is my belief that the majority of vivisectors pursue their work out of ardent love of science, or desire to benefit humanity (and I trust they carefully and conscientiously avoid inflicting needless pain), *there are others who seem, seeking useless knowledge, to be blind to the writhing agony and deaf to the cry of pain of their victims, and who have been guilty of the most damnable cruelties, without the denunciation by the public and the profession that their wickedness deserves and demands. These criminals are not confined to Germany or France, to England or Italy, but may be found in our own country.*

Should the law restrict the performance of vivisection? I think it ought, chiefly as an expression of public sentiment and for moral effect. . . .

*That restriction ought to forbid all experiments upon animals made without worthy objects; and in every case, so far as possible, the animal during and subsequent to the operation must be preserved from pain. Original investigations, very often a euphemism for vivisections, may seem quite fascinating to the*

young medical student, and possibly he thinks thereby to find a short road to fame: the result frequently remains in the embryonic condition of manuscript read chiefly, if not exclusively, by the author. But such investigations ought not to be made except under the directions of a qualified and conscientious teacher, who will see that they have a reasonable probability of usefulness, and that they are conducted so that no pain or the least possible pain is inflicted. Vivisection is in more danger from ignorant, rash, and reckless experimenters than from those directly hostile to it. I cannot think that vivisections done for teaching purposes, simply showing what has been proved time and again upon hundreds and thousands of victims, are justifiable, unless anæsthesia is employed not merely to mitigate, but completely to abolish, suffering of the animals. If the rule just mentioned is not observed, *the influence of such experiments is injurious both to the operator and to the witnesses of the operation.*



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